

Claims:

Claim 1, rewrite as Claim 1 (currently amended) as follows:

1. (currently amended) A method enabling the precise creation, fitting, and reproduction of objects comprising the steps of, [:]

- 1) defining a single 2-dimensional profile representation of an object;
- 2) determining by measurement and defining a finite number of parametric values, such as angular and/or linear dimensions, sufficient to characterize how the object changes in cross-section in 3-dimensional space with respect to the 2-dimensional profile of step 1; [Defining 3-dimensional parametric representations of an object]
- 3) converting the profile and parametric values [data] into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs;
- 4) creating a virtual CAD model from the profile and parametric values; [data]
- 5) calculating Numerical Control (NC) motion commands from the CAD model using CAM technology;
- 6) processing an object using Computer Numerical Controlled (CNC) machine; and,
- 7) transmitting data throughout the process, enabling these steps to be conducted at any combination of geographic locations.

Claim 2, (previously presented):

2. The method of claim 1, wherein step 1 comprises a tracing technique to define the 2-dimensional profile.

Claim 3, (previously presented):

3. The method of claim 1, wherein step 1 comprises a digitizing device to define the 2-dimensional profile.

Claim 4, (previously presented):

4. The method of claim 1, wherein step 1 comprises an optical scanning process to define

the 2-dimensional profile.

Claim 5, (previously presented):

5. The method of claim 1, wherein step 1 comprises exposure to a reactive chemical media, to define the 2-dimensional profile.

Claim 6, rewrite as Claim 6 (currently amended) as follows:

6. The method of claim 1, wherein step 1 and step 2 comprise a digitizing device to define the 2-dimensional profile and 3-dimensional parametric values [parameters].

Claim 7, (previously presented):

7. The method of claim 1, wherein step 2 is facilitated by means of printed measuring utensils.

Claim 8, (previously presented):

8. The method of claim 1, wherein step 1 and step 2 are facilitated by means of integrated instruction and data acquisition form.

Claim 9, (previously presented):

9. The method of claim 1, wherein step 3 comprises optical scanning technology.

Claim 10, (previously presented):

10. The method of claim 1 [14] wherein step 6 comprises a CNC controlled machine with a rotating tool.

Claim 11, (previously presented):

11. The method of claim 1 wherein step 6 comprises a CNC controlled machine with a cutting jet.

Claim 12, (previously presented):

12. The method of claim 1 wherein step 6 comprises a CNC controlled machine with a

cutting wire.

Claim 13, (previously presented):

13. The method of claim 1 wherein step 6 comprises a CNC controlled machine with a cutting laser.

Claim 14, (previously presented):

14. The method of claim 1 wherein step 6 comprises a CNC controlled Rapid Prototyping machine capable of directly producing a part.

Claim 15, (previously presented):

15. The method of claim 1, wherein step 7 comprises data transmitted electronically.

Claim 16, (previously presented):

16. The method of claim 1, wherein step 7 comprises data transmitted over the Internet.

Claim 17, (previously presented):

17. The method of claim 1 wherein any combination of steps 1-7 may be combined consolidated and/or automated.

Claim 18, rewrite as Claim 18 (currently amended) as follows:

18. (currently amended) An apparatus enabling the precise creation, fitting, and reproduction of objects comprising:[:]

- 1) a means of defining a 2-dimensional profile representation of an object's edges;
- 2) a means of determining by measurement and defining a finite number of parameter values, such as angular and/or linear dimensions, sufficient to characterize how the object changes in cross-section in 3-dimensional space with respect to the 2-dimensional profile of step 1; [a means of defining a 3-dimensional parametric representation of an object's topology]

- 3) a means of converting the profile and parametric values [data] into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs;
 - 4) a means of creating a virtual CAD model from the profile and parametric values: [data]
 - 5) a means of calculating Numerical Control (NC) motion commands from the CAD model using CAM technology;
 - 6) a means of processing an object using Computer Numerical Controlled (CNC) manufacturing technology;
- and,
- 7) a means of transmitting data throughout the process enabling these steps to be conducted at any combination of geographic locations.

Request for Constructive Assistance

Once again, the undersigned has made a diligent effort to define a novel and unobvious structure. If, for any reason the claims of this application are not believed to be in full condition for allowance, the applicant respectfully appreciate the continued constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03(d) in order that this application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully,

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I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope addressed to:

Commissioner of Patents and Trademarks, Washington D.C. 20231
on November 4, 2005

Daniel P. Sutula Jr.

 11/4/05
Signature Date